

HEPATITIS A OUTBREAK IN MICHIGAN

JULY 20, 2018

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OVERVIEW

- Basics of Hepatitis A
- Hepatitis A Epidemiology in the USA
- Update on the Hepatitis A Outbreak
- Vaccine Numbers & Supply Update
- Current Outreach

HEPATITIS A

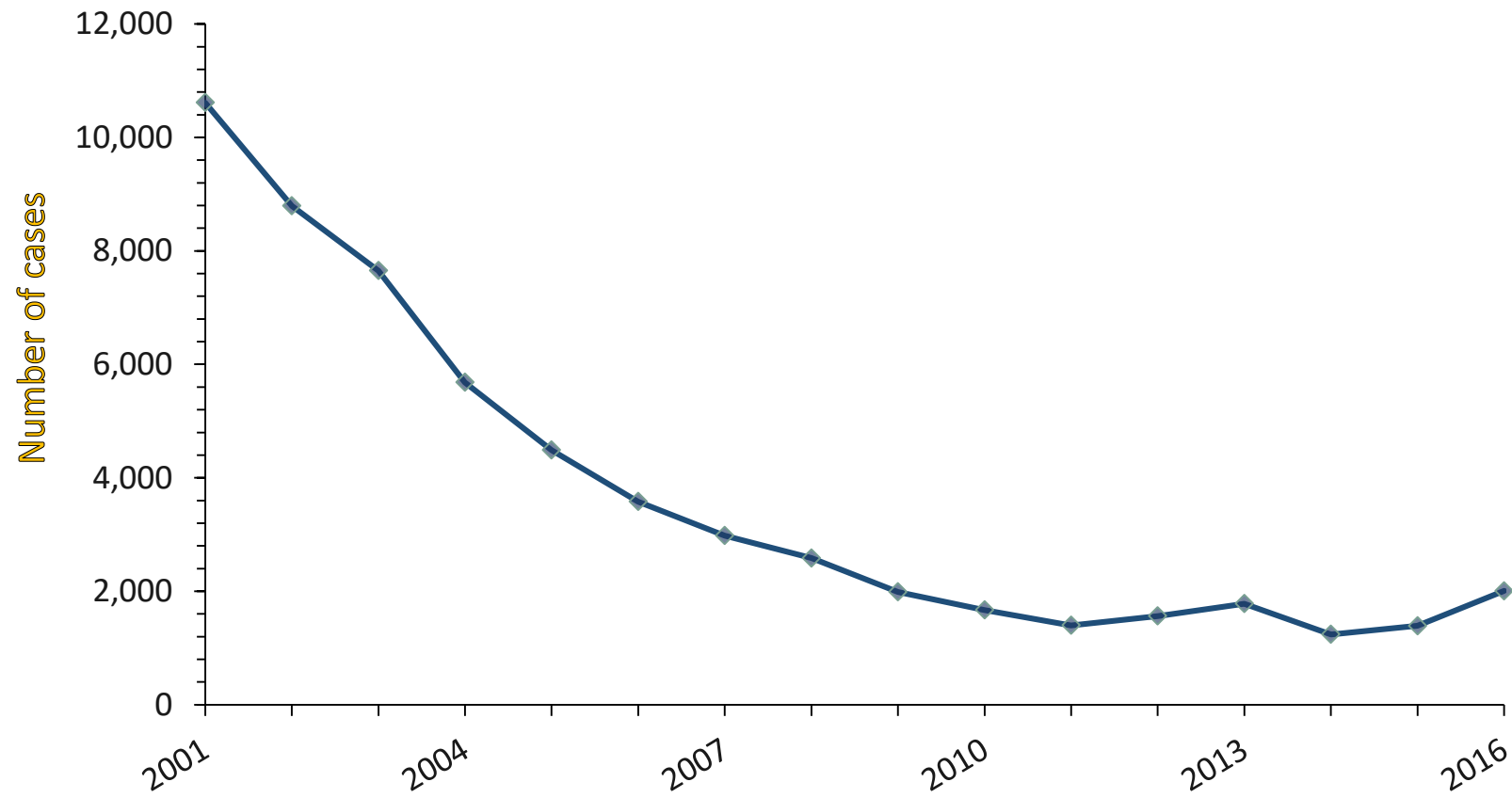
- Highly contagious, vaccine-preventable (acute) liver infection
- “Hearty” virus that cannot be inactivated using alcohol-based hand sanitizer
- Spread most commonly from person-to-person by the fecal-oral route or ingestion of contaminated food or water
- Incubation Period – illness can appear 15 to 50 days after exposure (Average 28 days)
- Can cause liver infection lasting a few weeks to a serious illness lasting several months



HEPATITIS A EPIDEMIOLOGY

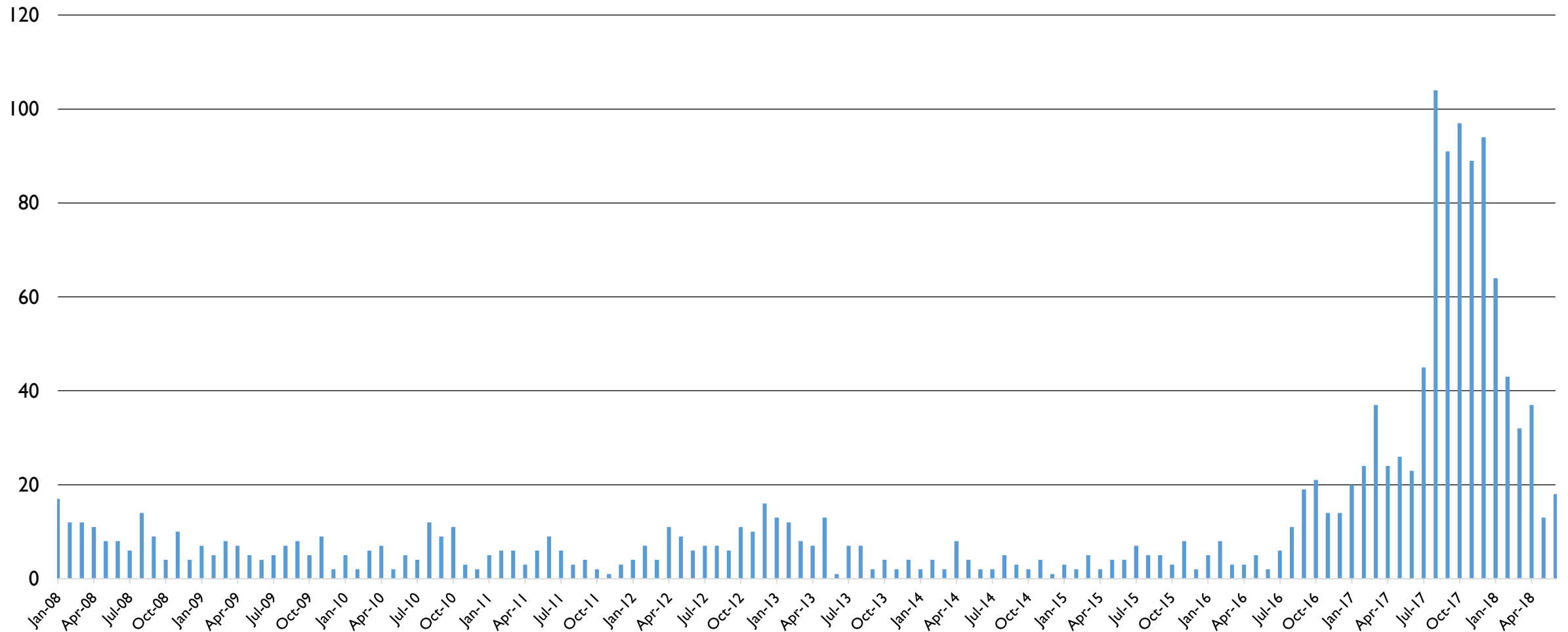


REPORTED NUMBER OF HEPATITIS A CASES – UNITED STATES 2000-2016



Source: <https://www.cdc.gov/hepatitis/statistics/2015surveillance/index.htm#tabs-4-4>

REPORTED NUMBER OF HAV CASES IN MICHIGAN 2008-2018





HEPATITIS A OUTBREAK

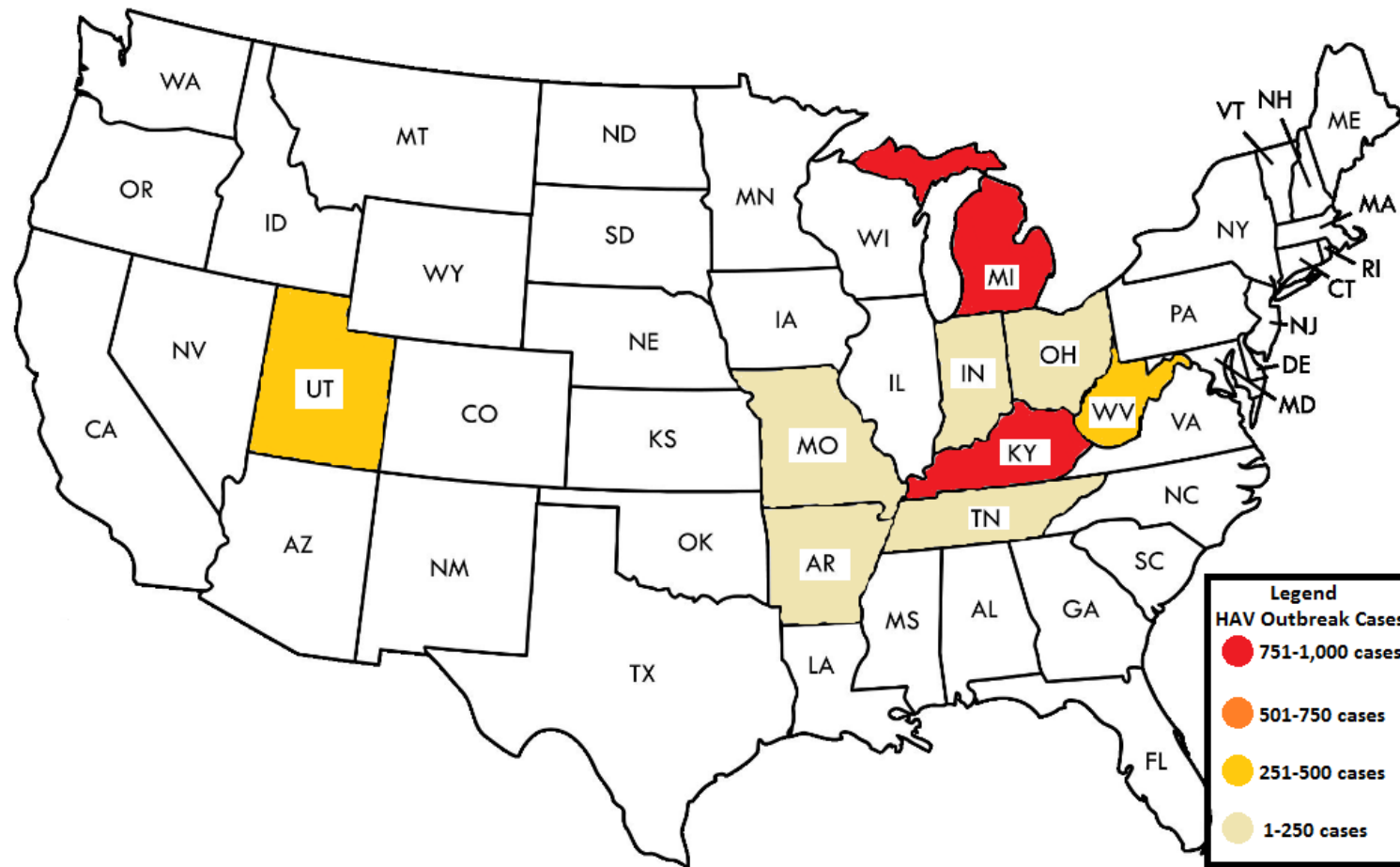


HEPATITIS A – NATIONALLY

	Cases	Hospitalizations	Deaths
Arkansas	58	*	*
Indiana	214	99 (46%)	1 (0.5%)
Kentucky	1034	628 (%)	8 (0.8%)
Missouri	142	59 (42%)	0
Ohio	119	77 (65%)	0
Tennessee	87	53 (61%)	0
Utah	259	138 (55%)	1 (0.4%)
West Virginia	451	303 (67%)	1 (0.2%)
Michigan	859	694 (81%)	27 (3.1%)

* Data not available

Source : <https://www.odh.ohio.gov/en/odhprograms/bid/orbitdis/hepa>
www.michigan.gov/hepaoutbreak
<https://www.healthy.arkansas.gov/programs-services/topics/hepatitis-a>
<https://www.in.gov/isdh/27791.htm>
<https://chfs.ky.gov/agencies/dph/Pages/default.aspx>
<https://health.mo.gov/living/healthcondiseases/communicable/hepatitis/index.php#outbreak>
<https://www.tn.gov/health/cedep/tennessee-hepatitis-a-outbreak.html>
http://health.utah.gov/epi/diseases/hepatitisA/HAVoutbreak_2017
https://dhhr.wv.gov/oeps/disease/viral-hepatitis/pages/hepA_outbreak.aspx



TRENDS IN THE NUMBER OF CASES

859

Cases

Primary Cases
772

Secondary Cases
87

694

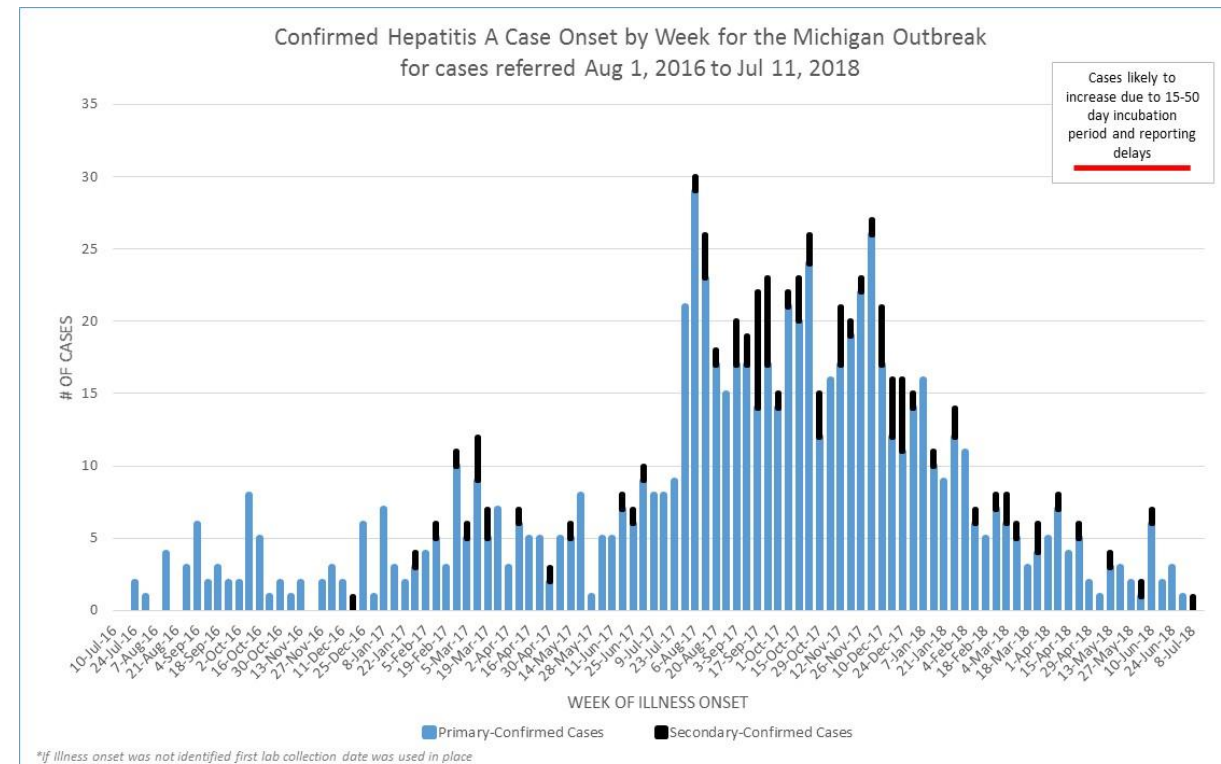
Hospitalized

27

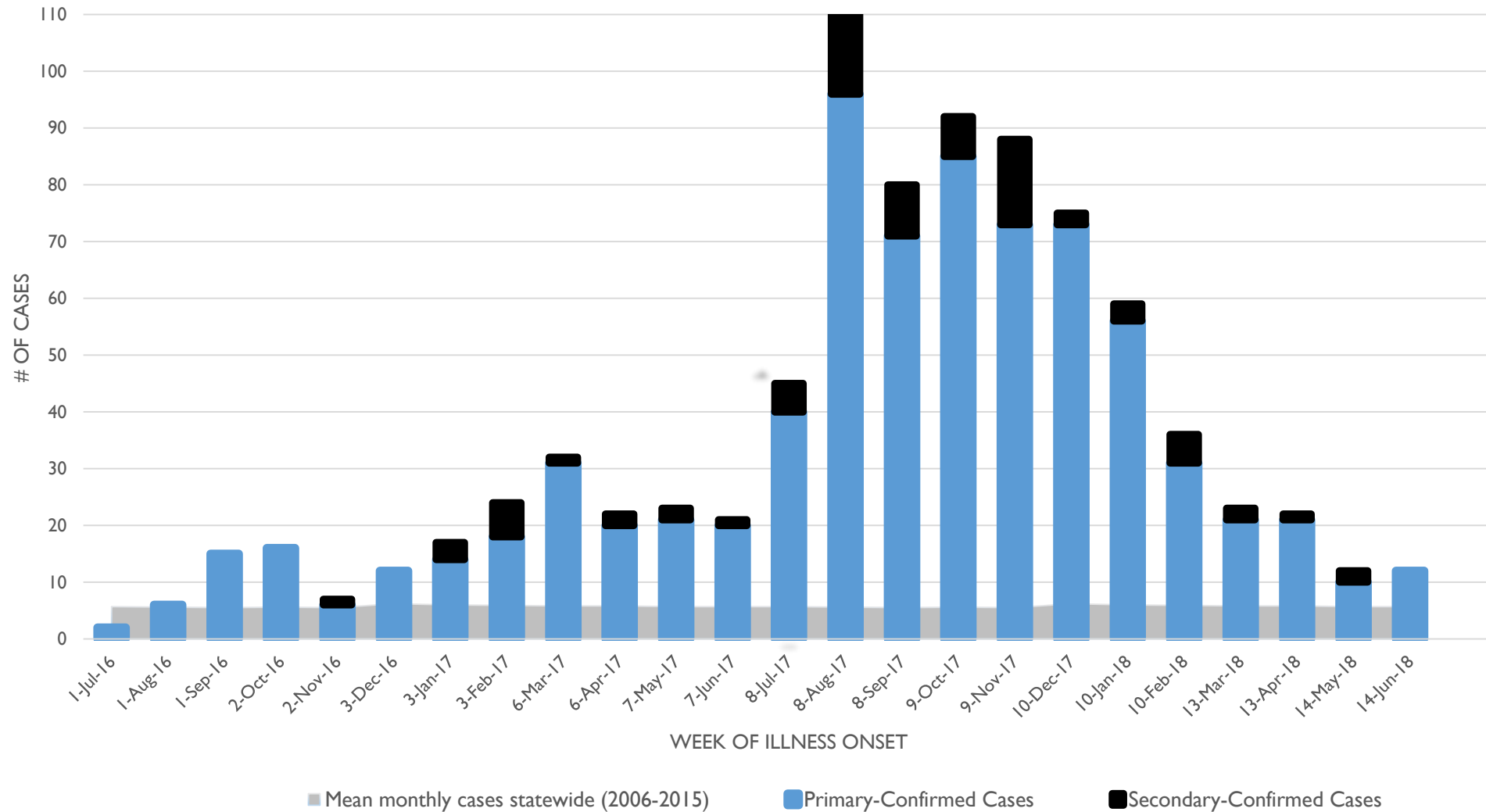
Deaths

	April 2008-2015	April 2018	May 2008-2015	May 2018	June 2008-2015	June 2018
Min Cases	2	23	2	11	1	15
Max Cases	11		13		9	
Average # cases	6		6		6	

Source: Michigan Disease Surveillance System, MDHHS



Illness Onset Dates of Confirmed Michigan Hepatitis A Cases Referred Between
August 1, 2016 and July 11, 2018



Source: Michigan Disease Surveillance System

GENOTYPING & SEQUENCING RESULTS

**Genotyping/sequencing
performed on available
case specimens (n = 632)**

**94.6% HAV RNA
recovered
(n = 589)**

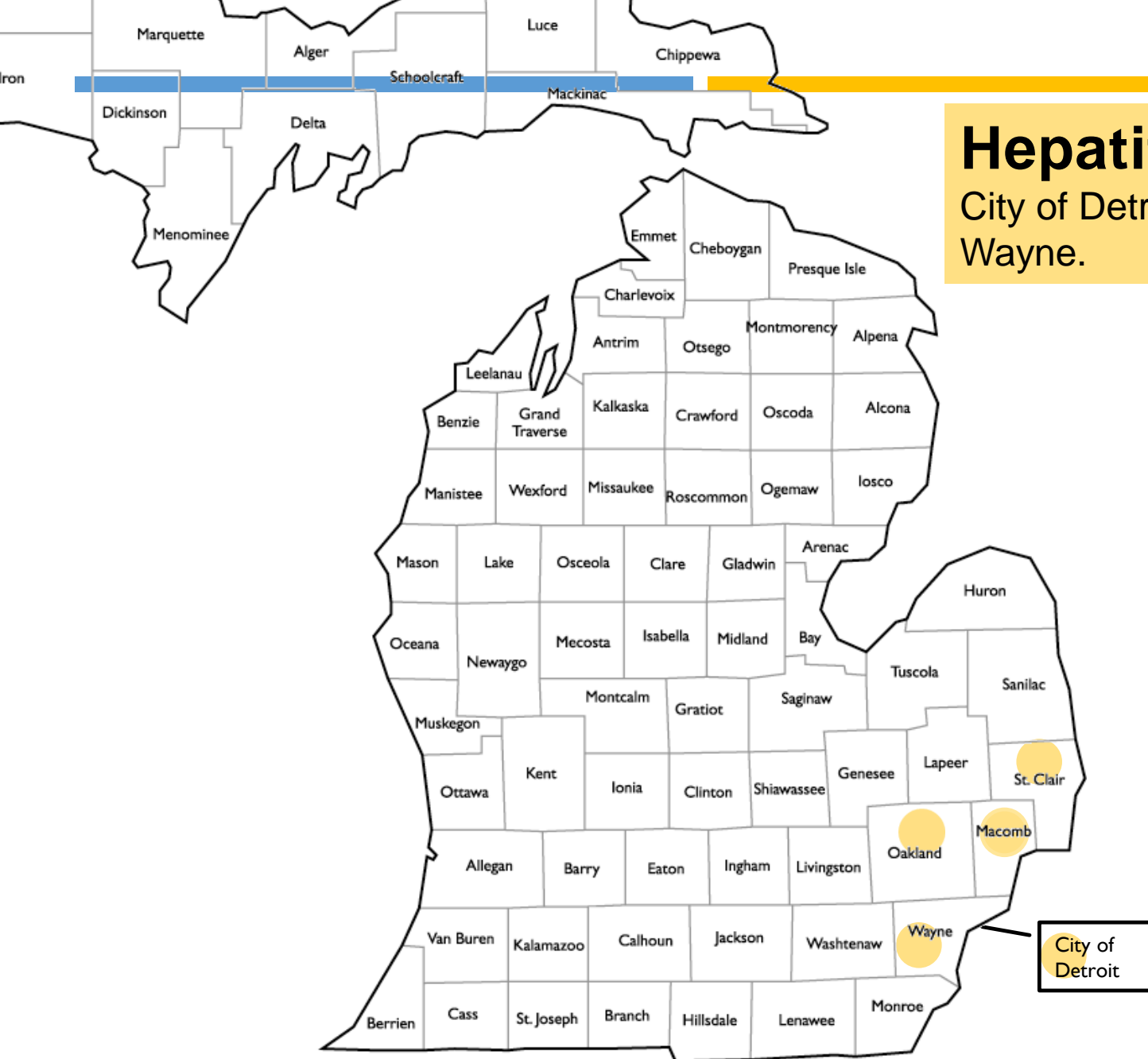
**5.4% HAV RNA negative
& excluded
(n = 43)**

**57.4% genotype
IB strain #1
(n = 333)**

**38.3% genotype
IB strain #2
(n = 229)**

**2.1% genotype IB
strains #3–6
(n = 14)**

**2.2% genotype IA
& excluded
(n = 13)**



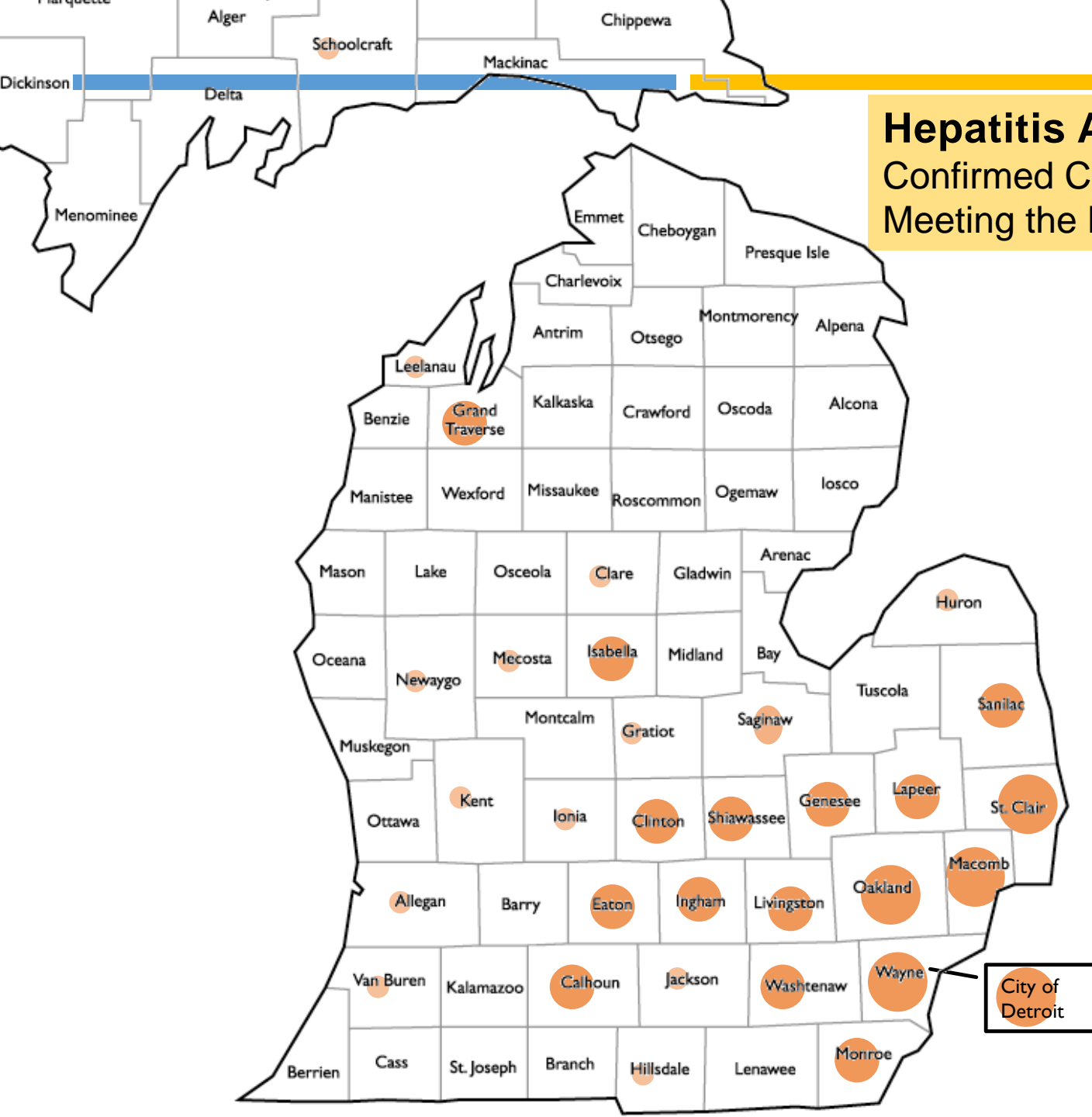
Hepatitis A Cases in Southeast MI

City of Detroit; Counties of Macomb, Oakland, St. Clair & Wayne.

**Confirmed Cases Referred August 1, 2016-
August 1, 2017**

**Meeting the SE MI Hepatitis A Outbreak
Case Definition**

County (or city)	Total Cases
City of Detroit	67
Macomb	47
Oakland	49
Wayne	40
St. Clair	4

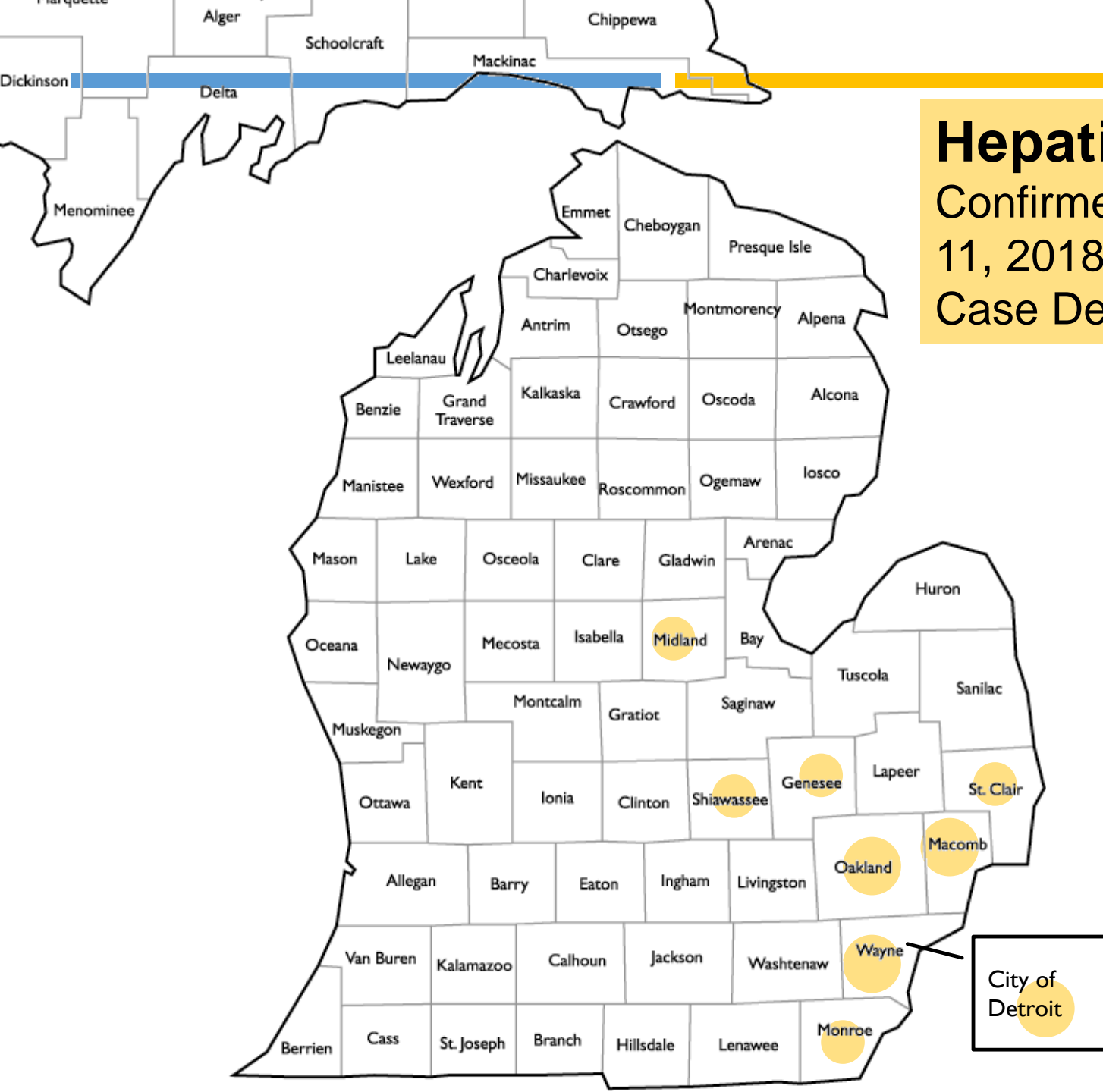


Hepatitis A Cases in Michigan

Confirmed Cases Referred August 1, 2016 – March 14, 2018
Meeting the MI Hepatitis A Outbreak Case Definition

Confirmed Cases Referred August 1, 2016-March 14, 2018 Meeting the MI Hepatitis A Outbreak Case Definition			
County (or city)	Total Cases	County (or city)	Total Cases
Macomb	213	Clinton	3
City of Detroit	166	Gratiot	3
Wayne	134	Saginaw	3
Oakland	107	Mecosta	2
St. Clair	30	Allegan	1
Ingham	18	Clare	1
Washtenaw	16	Hillsdale	1
Monroe	15	Huron	1
Genesee	12	Ionia	1
Isabella	8	Kent	1
Calhoun	7	Leelanau	1
Shiawassee	7	Lenawee	1
Lapeer	6	Newaygo	1
Livingston	6	Schoolcraft	1
Sanilac	6	Van Buren	1
Eaton	5	Other*	1
Grand Traverse	4		

*Jackson Michigan Department of Corrections



Hepatitis A Cases in Michigan

Confirmed Cases Referred August 1, 2016 – July 11, 2018 Meeting the MI Hepatitis A Outbreak Case Definition

**Confirmed Cases Referred August 1, 2016 – July 11, 2018
Meeting the MI Hepatitis A Outbreak Case Definition**

County (or city)	Total Cases
Macomb	220
City of Detroit	173
Wayne	144
Oakland	117
St. Clair	34
Monroe	18
Genesee	22
Shiawassee	13
Midland	3

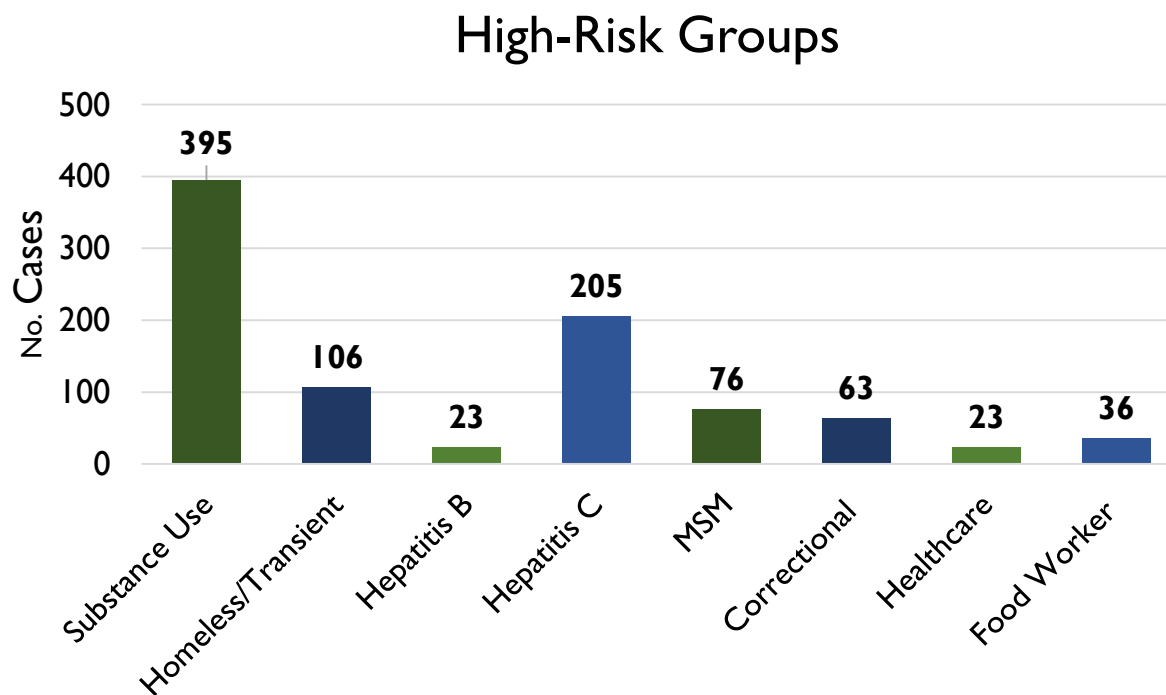


RISK GROUPS



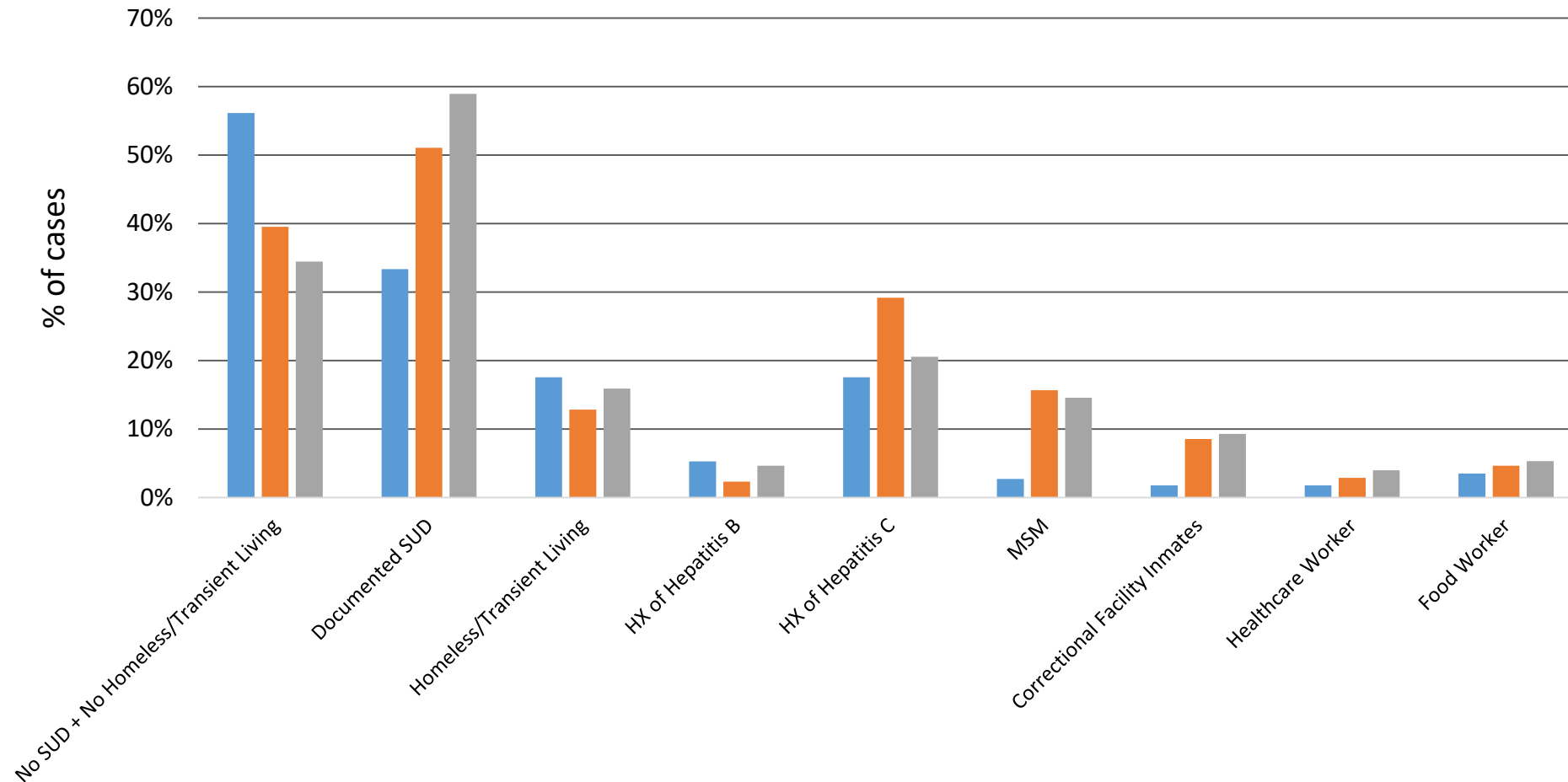
RISK GROUPS – EXCLUDES SECONDARY CASES

- Reported Substance Use Disorder(injected or non-injected)
- Homeless/Transient Living
- History of Hepatitis B
- History of Hepatitis C
- Men Who Have Sex With Men
- Correctional Facility Inmates



HIGH-RISK GROUPS BY YEAR

AUGUST 1, 2016 – JULY 11, 2018





HEPATITIS A IMMUNIZATION UPDATE

HEPATITIS A IS A VACCINE-PREVENTABLE DISEASE

- **Vaccine highly effective in preventing clinical hepatitis A**
 - Nearly 100% protection with two doses
 - 90-95% protection with one dose
 - Long term immunity (> 25 years)
- 2 shot series, given 6 months apart
 - Due to vaccine supply constraints, MDHHS is currently recommending administration of the first dose only to protect individuals against the Michigan outbreak.

SHOULDER INJURY RELATED TO VACCINE ADMINISTRATION (SIRVA)

- Occurs after incorrect administration of a vaccine intended for IM injection in the deltoid muscle (upper arm)
 - Inflammatory reaction as a result of unintended injection of vaccine antigen and/or trauma from the needle into and around the underlying bursa of the shoulder
 - Causes shoulder pain and limited range of motion
 - Onset of symptoms occurs less than or equal to 48 hours after vaccine administration



PRACTICE PROPER IM INJECTION TECHNIQUE

- When administering an IM injection into deltoid muscle, follow these steps:
 - Administer in thickest, most central part of the muscle
 - Use needle length based on patient's age and weight
 - Use a 90° angle when inserting the needle into the muscle



Image Courtesy of CDC



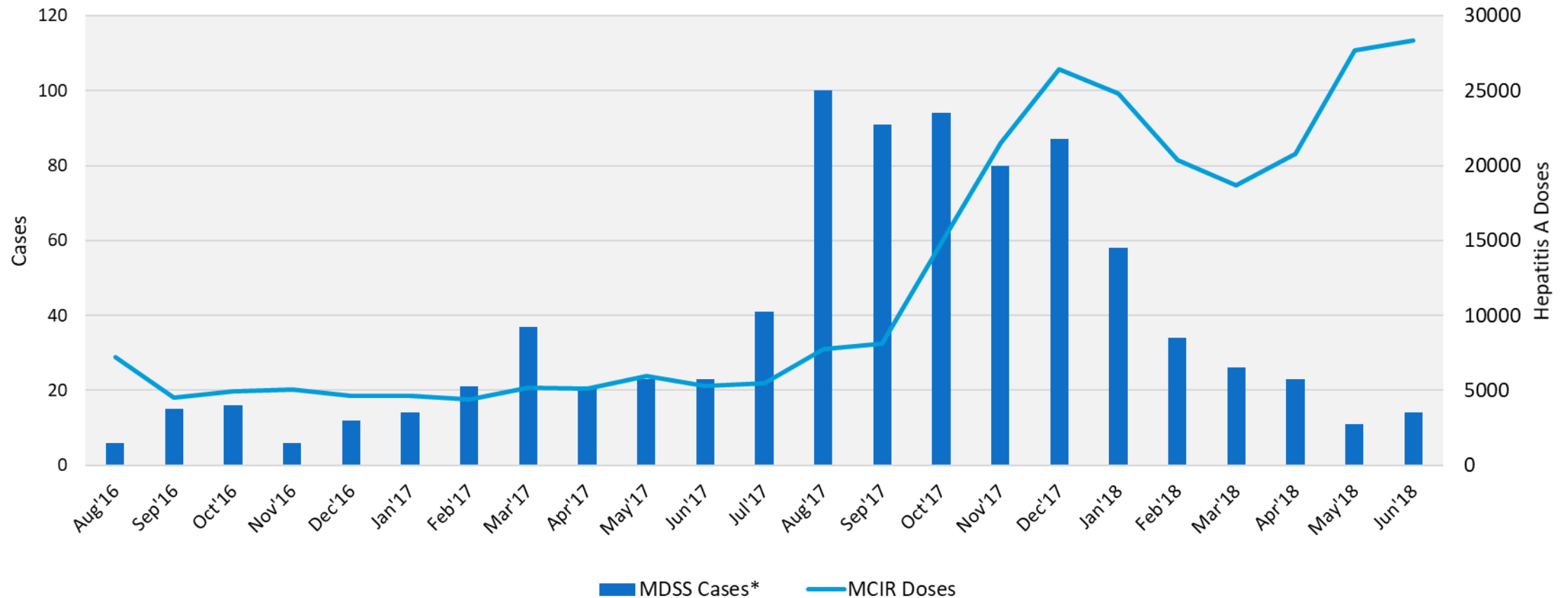
IMMUNIZATION DATA FROM THE MICHIGAN CARE IMPROVEMENT REGISTRY (MCIR)



OVERVIEW

- **180,086** outbreak doses have been administered and reported to the MCIR for adults 18+.
- LHDs, family practices, and pharmacies continue to be our top reporters since the end of November.
- Michigan's **1+ coverage** estimate for adults 19+ is at **15.3%**.

HEPATITIS A CASES VS. HEPATITIS A DOSES ADMINISTERED AND REPORTED TO THE MCIR FOR ADULTS 18 YEARS OF AGE AND OLDER BY MONTH, MICHIGAN, AUGUST 2016 - JUNE 2018



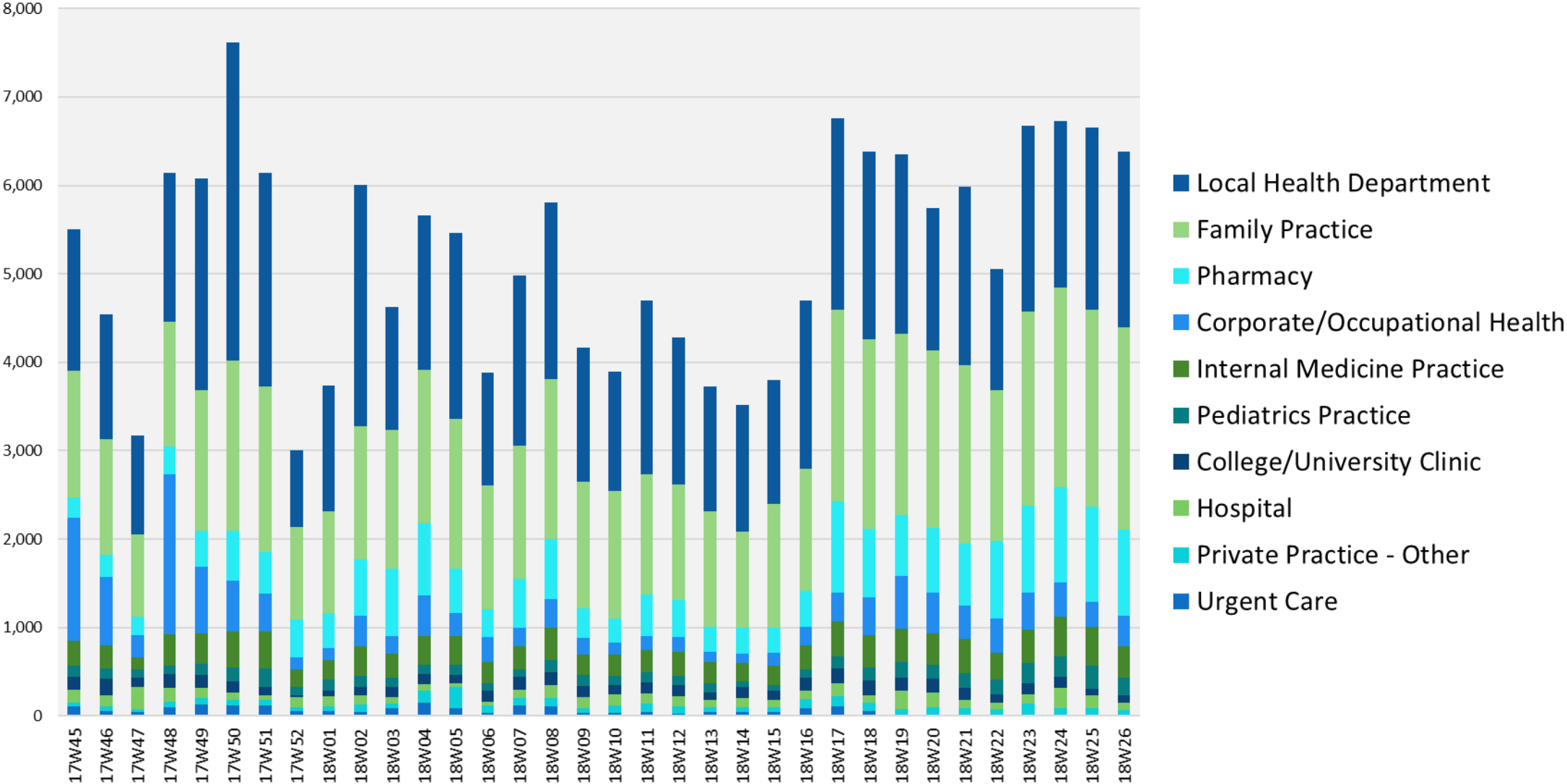
*N=847 includes primary, secondary, tertiary confirmed or probable cases from August 2016

MDSS data as of July 6, 2018

MCIR data as of July 7, 2018

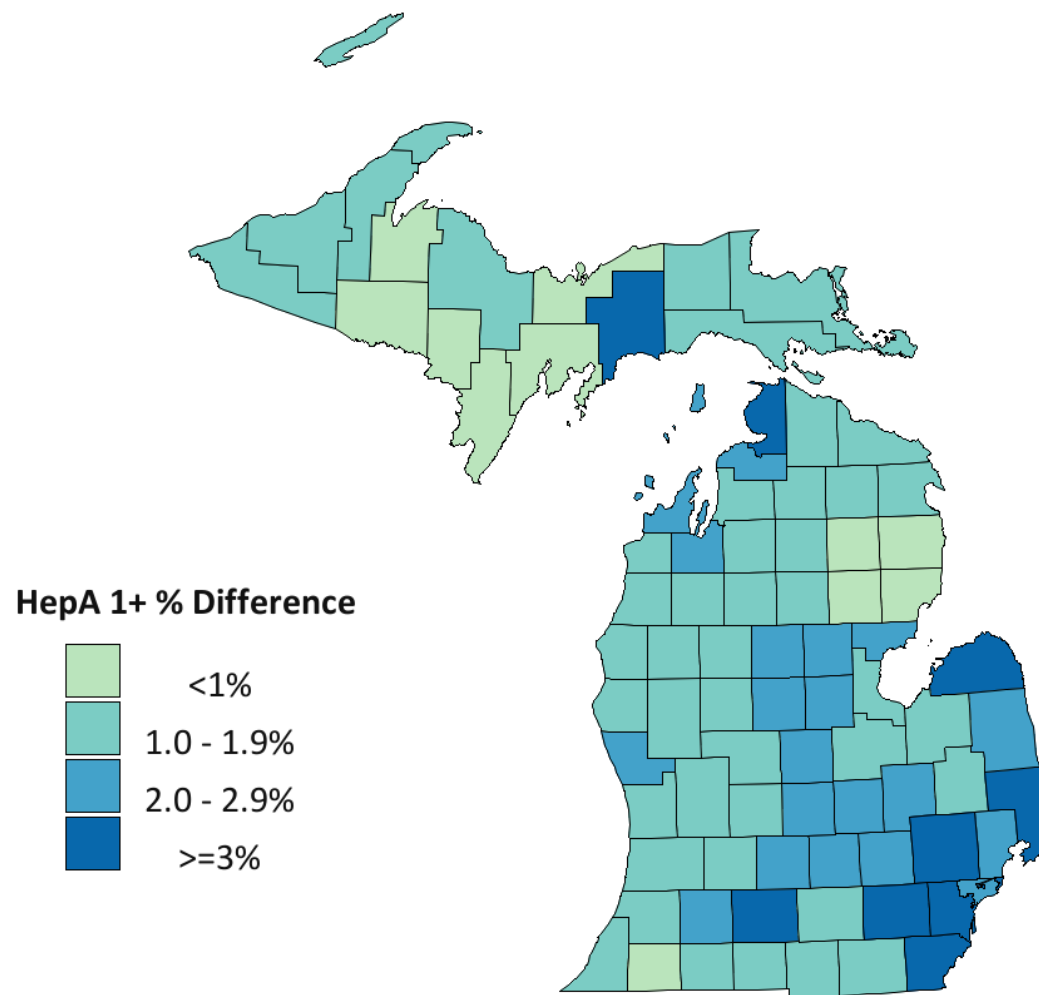


HEPATITIS A VACCINE DOSES ADMINISTERED AND REPORTED TO THE MCIR FOR ADULTS 18 YEARS OF AGE AND OLDER RESIDING IN OUTBREAK COUNTIES BY THE TOP TEN MCIR FACILITY TYPES AND WEEK, MICHIGAN, NOVEMBER 5, 2017 – JUNE 30, 2018



Adult Hepatitis A Coverage Percent Difference by County, MCIR

August 1, 2016 vs. June 23, 2018



Estimated change in coverage for adults 20 years and older as of August 1, 2016 based on data in the MCIR as of June 23, 2018 by county.

Prepared by the Michigan Department of Health and Human Services Immunization Division using data from the Michigan Care Improvement Registry (MCIR).

VACCINE SUPPLY

Constrained vaccine

- Focus on first dose
- Prioritize outreach in community to high risk populations
- Report all doses to MCIR
- Utilize private stock and bill private insurance when feasible
- Encourage FQHC's/Health Centers to enroll in MDHHS adult vaccine program (MI-AVP)
 - Local Health Departments are contact for enrollment



OUTREACH RESPONSE



HIGH-RISK GROUPS

Substance Use Disorder

- Drug treatment centers
 - Inpatient
 - Outpatient
- Methadone clinics
- Drug courts
- Half-Way houses
- Peer ambassadors

Homeless/Transient Living

- Parks
- Libraries
- Shelters/Motels
- Soup Kitchens
- Churches

Men Who Have Sex With Men

- Pride events
- Gay bars
- LGBTQ shelters
- Parks

Correctional Facility Inmates

- Offering vaccine at intake and
outtake
- And during health physicals

FESTIVALS UPDATE

This Summer the Local Health Departments have been targeting festivals where hard to reach, high-risk populations are in attendance.



They have been focusing on providing outreach in these venues including:

- Providing handwashing stations
- Offering vaccinations on-site or off-site
- Providing education materials and discussing Hepatitis A and prevention

FESTIVALS

MAY 19 – JULY 7, 2018

- Total vaccination administered at festivals, **466**
- Total number of festivals attended as of July 2018, **24**
- Several more events upcoming from now through September, 2018



Photo: DHD 10 providing vaccine outreach during Electric Forest

SUMMARY

- Go to the target population! Don't wait for them to come to you
- Consistency builds trust → increases uptake
- LHDs can request staffing support from VNA
- FQHCs/Health Centers can play a major role to reach high risk adults
- Remain diligent with ongoing assessment
- Neighboring states are struggling with outbreaks, it can easily escalate in Michigan again!

We are all in this together!



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